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The Citrus Industry

THE ONLY PUBLICATION IN THE WORLD
DEVOTED EXCLUSIVELY TO CITRUS FRUITS

Issued Monthly
Representative of every interest—
Representing no special interest

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Vol. 3 No. 10

TAMPA, FLA., OCTOBER, 1922

15 Cents a Copy



American Fruit Growers Inc., offers its nation-wide marketing organization and the use of its nationally advertised trade marks to all growers of quality fruit.

The nationally advertised symbols of quality of the American Fruit Growers Inc., BLUE GOOSE and AFG, are TRADE MARKS and NOT BRANDS.

The BLUE GOOSE trade mark, denoting superior quality, and the AFG insignia of dependable quality are available to all growers, who keep their pack and grade up to the required standard, to be used in connection with his own brand name.

American Fruit Growers Inc., operates on a fixed per box selling charge. The grower receives all the money which his fruit brings less selling charges.

Our representative in your section will be glad to call on you and to explain fully our unexcelled marketing service, or write the Orlando office direct for any information you may desire.

American Fruit Growers Inc.
Orlando, Florida



SPECIAL STATE FAIR NUMBER

Florida State Fair and Exposition

JACKSONVILLE

Nov. 17th to 25th, 1922



Florida Citrus Fruits

Cattle Hogs Horses


Farm Machinery

Government Dairy Exhibit---Grains and Grasses

Horseracing Amusements

Industrial and Art Exhibits

Special Rates On All Railroads




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Great Display Assured for State Fair

Visitors to the Florida State Fair and Exposition, which will be held in Jacksonville November 17 to '25, are promised one of the most complete and comprehensive state fairs in the history of Florida.

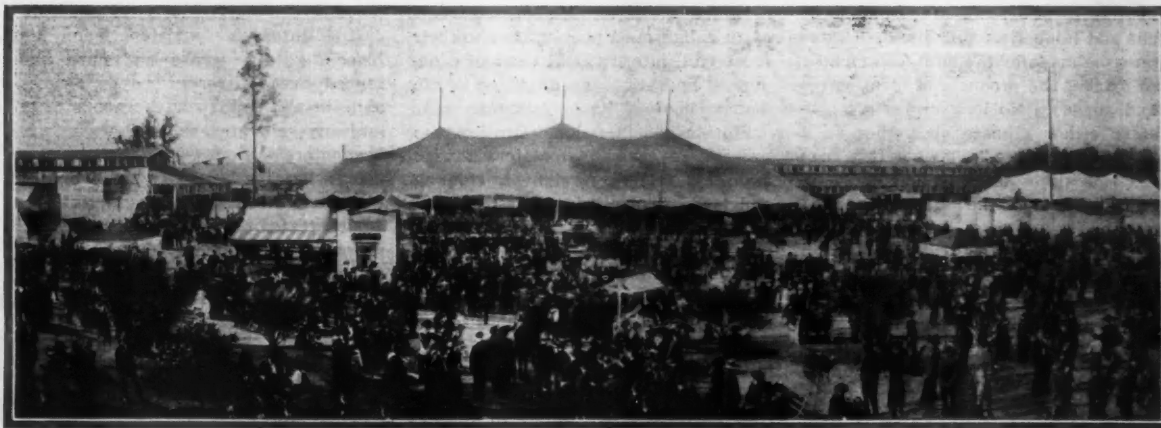
Plans for the big fall show are rapidly being whipped into shape, and entries already in hand indicate a wonderful display of Florida products—agricultural, horticultural, as well

United States Department of Agricultural dairy exhibit, boys and girls club work, home demonstration work, boy's pig clubs, boy's judging contest, woman's work, culinary work, horticulture, individual and community agricultural exhibits, cat show, dog show, poultry show, cattle, beef and dairy herds, swine and futurities, sheep and goats, horses, rabbits, varied industries, automobiles, farm im-

sides a handsome silver loving cup, which it will retain permanently, will pull down \$300 in cash.

The purely agricultural counties will also be here in force for this competition, the prizes being the same as are offered in the horticultural classification.

It is expected the live stock show will be the greatest ever staged in the southeast. Lifting of the cattle tick



as industrial.

In fact, the fair will visualize Florida's tremendous possibilities, as well as its gigantic forward strides in all lines of human endeavor. In other words, the fair has leaped to the proportions of an exposition, that, perhaps describing it better than any other designation.

And this is illustrated when one surveys the purely educational features, such as the county exhibits, the

plement and machinery, tractors, University of Florida exhibit, and many other features.

It is expected the citrus fruit exhibit this year will eclipse any thing of similar character the fair has ever offered. Many of the strictly citrus counties are coming to the fair this season with splendid exhibits of their resources, and the competition for the grand prize in this division is destined to be keenly fought. The winner, be-

quarantine from Duval county has brought a great flood of entries, and the question is—how to accommodate all the cattle offered for exhibition purposes.

The same is true with reference to the swine show, as well as the exhibit of dairy cattle.

Florida has made tremendous strides during the past several years in the dairy industry, and much of the cred-

Continued on page 22

Our Wasting Assets

By Russell W. Bennett

It is not the magnificence of our hotels, it is not the beauty of our lakes and rivers, not the wealth of the products of our soil that constitutes our principal asset,—yet each and all of them are dependent upon it. It is a thing not for sale, yet it is a priceless and marketable commodity that costs nothing. It brings in large return in health, comfort and in dollars. It is that intangible something described as "the atmospheric and weather condition of a place, especially as regards temperature, moisture, etc."

We call it climate, and few of us think of it as other than a permanency, yet many of us remember when citrus fruits were a profitable crop in and around Jacksonville and tropical plants decorated the unprotected gardens of the city on the St. Johns.

Our climate is not only a wasting asset, but one that is being fast depleted. We need not the definition by learned scientists to make it clear to us that as the forests are demolished, the winds unchecked, sweep on and on and grow in volume; that as timber is taken from the headwaters of streams, there is lessened flow, and that these factors disorder the elements of climate.

The continued use of wood is essential to progress. Trees must be cut and lumber manufactured. Crates must be made by the millions annually to market the products of farm, grove and garden. No longer may we consider either climate or timber as a "natural resource." Timber is a crop—a renewable asset, and upon its renewal depends the maintenance of climate.

The Southeast is called upon to supply structural timbers, boards and trim, in great part, for housing the people in the most populous portions of America, and wood for innumerable industrial purposes. The cost of this basic commodity is mounting by reason of increased scarcity and burdensome carrying charges. The law of supply and demand still prevails and until a surplus exists, through replenishment, costs will continue to rise. Notwithstanding the great increase in the use of brick, cement and other articles for which wood was once employed, the demand for lumber continues to grow, and prices will soar, almost without limit, until there is competition. It is an economic necessity that this competition be created. New conditions confront us which

call for a reconsideration of old ideas; a realization of things as they are.

It should not be considered an evidence of selfishness, nor a matter of local concern, if we plan and plead for help in the big program of reforesting. It would be a national calamity if this "playground of America" should lose its attractions, if we could no longer supply the markets of the nation with citrus fruits and winter grown vegetables.

The opportunity is before us and the condition is favorable for acquiring forests in Florida, on lands not well suited for other purposes, that should ultimately furnish an adequate and continuous supply for the more essential uses.

It is too big an undertaking for individuals or for industries. It is a function and duty of government, but there is grave doubt of the advisability of more federal control than now exists. Ultimate profit from forests is certain and investment stable. The earnings of the State should revert to the State and not to the Nation. The taxable area of the State should not be reduced to the extent requirements indicate needful. Under federal control inimical interests elsewhere or political exigencies might nullify the most patriotic effort of management.

Under State ownership, the voice of an enlightened people, alive to their most vital interest, will demand economy of operation and diligence in the management of its investment.

Florida has in Colonel Greeley, the present government forester, a wise and able friend, farsighted, staunch and true. The president of the United States and many of our National law making bodies realize, or may be made to realize, conditions, and, for the general good, support measures for relief, but, is it reasonable to expect people elsewhere to comprehend the seriousness of the condition with which they are but vaguely familiar? How may we expect others to initiate and forward measures that are, in a final analysis, essentially for local benefit?

In March of the present year, an emergency measure, prepared by Col. Greeley, was introduced into both houses of Congress by members from Florida. It provided for "the acceptance of title to forest lands in the State of Florida to create National forests therefrom," in the sale of timber from lands acquired under the act, it was provided, "preference shall be

given to applicants who will furnish the products to meet the necessities of citizens of the United States, engaged in agriculture in the State of Florida."

The measure was not enacted into law. There was a lack of interest manifested on the part of the people of Florida, an inertia was evident that gave no encouragement to representatives in Congress.

It was, however, at best, but a compromise measure made to coordinate with an enabling act passed by the Florida Legislature in 1921, which gave consent of the State for the Federal Government to acquire titles in the State and granting it powers and privileges for administration, control and protection of its properties.

A comprehensive, practical and beneficial measure was introduced into the Senate by Mr. Overstreet, and in the House by Mr. Parish, during the last session of the Florida Legislature. It provided for the creation of a State Board of Forestry and gave authority for it to acquire lands by donation, purchase and lease; for co-operation with owners of large tracts for levying a license tax on manufacturers of forest products for its partial support. It embodied provisions for fire control but the bill was defeated through the activity, it is claimed, of cattle interests insistent upon alleged rights to graze and burn unfenced areas, irrespective of ownership, or the rights, or the needs of a majority; misinformed as to their own best interests.

Investigations recently made by experts of the forestry service have demonstrated the practicability of, and ultimate profit from, the growth of slash pine on much of the present unfruitful lands in Florida and portions of adjacent states. Details are set forth in Farmers' Bulletin No. 1256, published by the U. S. Department of Agriculture. Private interests, however, cannot be expected to undertake replenishment of the timber supply on a scale commensurate with prospective needs, nor to make the large investment necessary with the uncertainty of securing, and having maintained, a permanent system of equitable taxation.

The demand is urgent for action but the situation representing supply is not critical and will not become so, if systematic replenishment of timber supply is undertaken promptly. If individuals and organizations of

growers and shippers will join with the industries utilizing forests products in continued forceful demand for constructive, not consent, legislation, the next session may be brought to a realization of its possibilities; of its duty to their state and to posterity, and pass a bill that will, at least, make a start in the right direction.

Early in 1921, the U. S. Department of Agriculture sent out a bulletin to the press of the nation, of current interest, because of the moderation of its forests, and as indicative of its realization, from research, of the importance of its subject matter. We might now consistently read into it figures of crop and value, greater by percent, and the estimate for the decade in like proportion. Under the caption, Florida Citrus Growers Want Reforestation, it said:

"The eaters of Florida oranges and grapefruit may not think of reforestation as in any way affecting their breakfast tables, but the Florida citrus fruit growers have a different point of view, according to forestry officials of the United States Department of Agriculture who have found the leaders of the industry anxious about future supplies of box material.

"The Florida grapefruit and orange crop now requires on the average more than 12,000,000 boxes yearly to get it to market. It was a money value of something like \$30,000,000, and the industry is still expanding rapidly. By 1930, if production continues to increase in similar ratio to that in recent years, the output will require 40,000,000 boxes annually. Each box requires about 5½ board feet of lumber.

"Local southern pine forests are the source of the raw material for these boxes, but the supply is drawn upon also for wooden containers for the products of Florida truck farms. Truck farm products of the State now call for 13,000,000 boxes annually, and this demand also is growing.

"Forest depletion under methods which do not provide for re-growth has reached a point which makes the question where containers are to come from of very practical concern to the citrus industry in Florida.

"Conferences have been held with leading officials of the Forest Service to discuss this question. Application of the principles of forestry with a view to the production of sustained supplies of box is regarded as the only way to meet the problem.

"The Government has a National Forest in Florida of over 300,000, acres, on which the practicability of forest management for a sustained yield has been fully demonstrated,

"The greatest danger confronting the Florida citrus grower and shipper this season," says Lawrence Gentile of Gentile Bros. Co., Orlando. "is the tendency on the part of some growers and shippers to rush the fruit to market in unfit condition.

"The extension of the rainy season long beyond its usual period has tended to delay the maturity of the fruit, particularly oranges, and much of this crop is absolutely unfit for shipment under present weather conditions. With grapefruit, the situation is less acute, as this fruit is more fully matured and stands shipment much better than oranges in the present state.

"The good prices prevailing for high grade fruit has tempted some growers and shippers to rush oranges to market without regard to their ripeness or fitness for shipping. The result has been that a number of cars have reached the Northern distributing centers in a decayed or decaying condition, to the detriment of all shippers, as buyers have come to look with suspicion upon all shipments as the result of receiving these few cars of decayed fruit.

"It is unfortunate that there appears to be no way of stopping the shipment of fruit under present weather conditions, save through the exercise of common sense on the part of all growers and shippers. As long as any Florida fruit is shipped under conditions which cause its arrival at distributing centers in unfit condition, all Florida growers and shippers must

suffer loss from the suspicion thus created regarding all Florida fruit.

"As for Gentile Bros. Co., we shall not ship a car of oranges until the fruit itself and the weather conditions are right—if it is not until Christmas. I believe that this policy should be adhered to by all shippers, and that it would result in much greater profit to all concerned. There is every reason to believe that Florida's present big crop can be marketed at good prices if the shipment of unfit fruit under unfavorable weather conditions can be checked. But if the fruit continues to be rushed to market regardless of its fitness and weather conditions, the inevitable result will be lowered prices and continued suspicion on the part of Northern buyers.

"The greed of an individual producer or incautious shipper should not be permitted to endanger the profits of other growers and shippers or to cast suspicion upon the Florida crop as a whole. Florida fruit this year is of exceptional size, and if permitted to remain on the trees until favorable weather conditions prevail, it will be of exceptional quality, but both grower and shipper must exercise common sense and business caution if the best prices are to be maintained and the reputation of Florida fruits protected.

"I believe that The Citrus Industry can perform no greater service for the industry as a whole than by calling attention to the danger which threatens to curtail the profits of the growers through incautions and premature movement of the crop."

according to the Forest Service, but the lumber needs of the State will require a very much larger acreage than this. Under the nation-wide forestry program which the Forest Service and the forest and wood-using industries of the country generally are advocating, it is proposed to bring about conservative handling of private forest lands as well as public. The citrus fruit growers are reported to be joining in advocacy of this program."

Co-ordination with, not control by, Federal Government appears to be logical, consistent and essential. Is it not a duty incumbent upon every citizen of Florida to demand relief at the hands of the legislature?

The proper use of new equipment often requires a change of "ways."

BROOKSVILLE GROWERS ARE ENLARGING PACKING HOUSE

The Brooksville Citrus Growers are enlarging their packing house by an addition on the west end of their building which will increase its length over thirty feet. Additional platforms are also being added. The increased amount of floor space was necessary in view of the natural increase in volume of their packing operations. The local exchange will use part of this new space for the process of coloring their fruit.

FRUIT IN GOOD SHAPE

Recent rains in Highlands county have caused the citrus fruit only negligible damage from splitting according to leading growers.

The Citrus Industry

ISSUED MONTHLY

By

ASSOCIATED PUBLICATIONS CORPORATION
TAMPA, FLORIDA

S. L. FRISBIE, Editor and Manager

TELEPHONE:

Editorial and Business Office4819

Subscription \$1.00 per year in advance

Entered as second-class matter February 16, 1920,
at the postoffice at Tampa, Florida, under the act of
March 3, 1879.

MYRON E. GILLETT

In the recent death of Myron E. Gillett of Tampa, Florida has lost one of her most prominent and able citizens and the citrus industry one of its foremost promoters and warmest friends.

Coming to Florida in 1880 in search of health, Mr. Gillett became enamored of the beauties and possibilities of the state and at once adopted it as his home. From that day until the time of his death, for a period of more than forty years, he was known as one of the most active, aggressive and enterprising of the state's citizens.

As one of the founders of the Florida Citrus Exchange and as one of the leading spirits in that organization to the time of his death, Mr. Gillett exerted an influence in citrus circles exceeded by that of no other man. His advice was frequently sought and his voice always carried authority.

As the founder of the Buckeye Nurseries, he was a pioneer in this line of activity, and through his activity and later through the activity of his son, this business has been built up into one of the greatest nursery undertakings not only in Florida, but in all the citrus world.

Mr. Gillett's latest activities had been directed toward the development of the Temple orange and the numerous enterprises which have been built up around that popular fruit, including the great development at Templetown and Temple Terraces, the latter project located but a short distance from Tampa.

In the death of this pioneer, the citrus industry of Florida loses an active worker whose place it will be impossible to fill.

WATCH YOUR STEP.

From two widely divergent sources The Citrus Industry this month receives requests to warn Florida citrus growers and shippers of the danger which threatens from the incautious shipment of unfit fruit under weather conditions which have prevailed almost continuously since the opening of the shipping season.

Mr. H. G. Gumprecht, manager of the Manatee Sub-Exchange, very forcibly calls attention to the danger from shipping immature fruit to the Northern markets. Mr. Lawrence Gentile, head of the Gentile Bros. Co., of Orlando, and a leader among the independent shippers, voices a similar warning in terms even more positive.

This is no new subject among Florida growers and shippers. Every year complaint is heard with

greater or less degree of emphasis, of the injury which is being wrought to the reputation of Florida citrus fruits by reason of an ever-present tendency to rush fruit to market before it is fully mature in the hope of gaining temporary advantage through the higher prices ruling at the opening of the season.

The evil effects of this tendency are universally recognized, yet each year some adventurous spirits are to be found who, for the sake of a few extra dollars from their early shipments are ready to sacrifice the best interests of the industry and to ruin the reputation of Florida fruits.

It is too bad that some way cannot be found to check the practices, but as Mr. Gentile points out the only solution of the problem appears to lie in the exercise of common sense, a commodity not universally exercised by growers and shippers.

PROTECTING THE GROVES.

There are in Florida, according to the latest available figures of the state commissioner of agriculture, approximately 8,000,000 bearing citrus trees—that is, trees which are at least in partial bearing. Based on an average of 50 trees per acre, which certainly may be accepted as a conservative estimate for the citrus section as a whole, that means that 160,000 acres of Florida soil are devoted to the culture of citrus fruits in a state of development at and above the bearing age.

The selling value of a bearing citrus grove in Florida is anywhere from \$1,000 to \$3,000 per acre but accepting the lesser figure as an average value, to maintain the element of conservatism, this would make the value of the bearing groves of the state \$160,000,000. If we were to accept the intermediate price of \$2,000 per acre as the average, the total value of bearing groves would be double these figures, or \$320,000,000. In addition to this, there are thousands upon thousands of non-bearing groves, which have a value of from \$500 to \$1,000 per acre, besides countless millions of young trees in nurseries of which no account has been taken. Certainly, with these young groves and this vast acreage of nursery trees, it is not too much to assume that the total valuation (selling value) of all citrus land in the state is easily \$320,000,000.

That is a vast sum of money. Particularly, it is a vast sum of money to be unprotected. And yet that is just the condition of by far the greater part of Florida's citrus plantings. A hard freeze, such as Florida does get once in several decades, might easily wipe out the greater part of this investment—as nature on one of two occasions has demonstrated.

This year, it is officially estimated, Florida will produce something like 15,000,000 boxes of citrus fruit, worth easily \$40,000,000. This crop, by far the largest single element in Florida's financial prosperity, is largely unprotected from the elements. A freeze, even though it might not be of sufficient severity to permanently injure the trees, would wipe out this crop and materially reduce production for years to come.

California experienced such a freeze last Jan-

uary, and but for the presence of grove heaters in many of the groves the yield of the present year would have been much more seriously reduced than will actually be the case. The grove heaters made the production of a crop in California this year a possibility. Without the heaters, many groves would have been killed outright and others would have been damaged to the point where production would have been reduced for a long period of years. What grove heaters did for California last season, and what they are doing in that state practically every season, it is safe to assume that they would do for Florida in those years when exceptional cold visits this state.

The citrus industry believes that every grower should study economy in the production of his crop, but it believes that in the case of grove heaters, as with fertilizers, insecticides and modern machinery, economy spells investment—investment backed by judgment and based upon careful consideration. The value of Florida citrus groves and the Florida citrus crop is too vast to be left unprotected, a prey to the elements.

A NATIONAL COMMITTEE.

Horticulture, from the national point of view, is probably the poorest organized of any of the agricultural groups, says the American Fruit Grower. We are referring specifically to organization which brings about helpful legislation on the one hand and organization which means the education of the public on the other hand. We have no body of horticulture comparable with the National Milk Producers' Association, the live stock associations, the wool growers associations, etc. These boards and bodies are ever on the watch that national or state legislation is not passed which would be inimical to the industry. They are always ready to foster helpful legislation and to fight laws which are unjust to the industry they represent. Whenever a big, national meeting is held in the form of an exhibit, you will always find them present with very attractive educational exhibits, educating the American people to the value of meat, milk, cheese and kindred products, both from the point of view of food in the diet and also from the point of view of healthfulness. We are speaking entirely from the producer's point of view. There are certain horticultural bodies such as the International Apple Shippers' Association, the Western Fruit Jobbers, the Fruit and Vegetable Shipper's Association, the National Nurserymen's Association and others too numerous to mention, who generally are watching legislation very carefully, and who issue considerable publicity which is helpful to the business they represent, but this has little to do with the problem facing the producer, where we find practically nothing is being done. If bad legislation is attempted by Congress, we rush a few men to Washington, hoping to avert the passage of such legislation, but there is no systematic, national work being done to see that the work is properly fostered by educating the American public to the fact that fruit is an economical, healthful food, that it is cheap to buy, that it is not a luxury, that fruit is something more than eating an apple a day to keep

the doctor away. A national body is needed to handle these problems; possibly it will be the Federated Growers; or perhaps better, it is a job for American Promological Society to undertake; or the old Committee of Twenty-one which was instrumental in bringing into being the Federated Fruit Growers. Someone should do this work and a plan should be evolved, financial arrangements should be perfected and this body should be put to work to see that horticulture is properly protected to the same extent that other lines of agriculture are being fostered and protected.

"Joe" Lyons, who is a pretty accurate crop estimator, believes that the estimate of 15,000,000 boxes is entirely too high. He looks for an excessive droppage and believes that the total shipments from the state will not exceed those of last year.

No man who invests from \$1,000 to \$3,000 per acre in a citrus grove can afford to be too conservative in the matter of fertilizers, sprayers and heaters. An investment of that magnitude demands protection.

Grapefruit shipments have been reaching the Northern markets in good condition. With oranges greater care in selection and shipment is needed, and some oranges have suffered material loss in transit.

Orders booked by nurseries indicate that there is to be no cessation of grove plantings this winter. Popular varieties of young trees are in great demand in every section of the citrus belt.

Most growers regret the cancellation of the Citrus Seminar this year, but few of them are grieving over the omission of that trip to Gainesville over almost impassible roads.

The sale of a Florida citrus grove at \$3,500 per acre shows what investors think of citrus possibilities in this state. For a fifty-acre grove, that is a pretty sizeable sum.

Remember that your late fall application of fertilizer has the greatest influence upon the early spring bloom and the "sticking" quality of the young fruit.

The pickers are busy in the groves and the packers are keeping pace with them in getting the golden fruit to market.

The satsuma is invading West Florida. Great plantings are being made in the vicinity of St. Andrew's Bay.

Marketing agencies are preparing to handle the largest crop of citrus that Florida has ever produced.

Carlot shipments of grapefruit to date have outnumbered oranges in about the ratio of six to one.

The avocado is making a strong bid for second place in the favor of Florida citrus growers.

Teaching Northerners How to Eat Florida Grapefruit

By Frank Kay Anderson

To a Floridian, it is often difficult to realize how new is grapefruit to many thousands of northern residents; and how unfamiliar are many, many northern families in fairly good circumstances with this most delectable fruit. Yet the fact remains that grapefruit still is in process of introduction throughout the North, and that this introduction must continue for several years to come, if a market is successfully to be made for the constantly increasing production from Florida groves.

One difficulty which constantly has stood in the way of making more consumers of grapefruit has been a general lack of knowledge on the part of would-be users as to how grapefruit should be served properly. As might be anticipated, for one of the uninitiated to endeavor to eat a grapefruit

ious preparer in return. That they have put it into use is attested by the big file of testimonial letters in the office of Chase & Company. There are a great many letters which say in effect that the use of the preparer and the directions given in the booklet gave the writers their first proper impression of grapefruit, and that in consequence their families now are enjoying its delights regularly.

The preparer itself is a very clever and practical device. It was originated and patented by William H. Houser, salesmanager for Chase & Company, who realized the need for something of the sort and set about devising something which would make the proper preparation of grapefruit for the table practically a fool-proof operation. The accompanying illustration shows the appearance of

ones interested. The Hillsboro Hotel in Tampa uses the preparer in its kitchens regularly for the preparation of grapefruit for the table, as do a number of other Florida and Southern hostelrys.

The preparer was invented by Mr. Mouser several years ago, and has proven both practical and popular from the start. First attempts to advertise it were tentative and experimental, but the unusual success of the effort has led Chase & Company more recently to feature it strongly. The results have been very gratifying. A single church bazaar in a northern city last winter resulted in the sale and distribution of a large number of preparers and recipe booklets. One of the ladies earlier had sent for one, and was so thoroughly won by it that she made arrangements for her church



in the same manner as an orange is eaten is likely only to produce a wry face and a dislike for the fruit, as the bitterness of the inner "rag" makes itself manifest to the offense of the palate. How then to serve grapefruit properly always has been the burden of the message of Floridians engaged in making wider markets in the North for grapefruit.

One very successful campaign in this direction is that which has for several years now been carried on by Chase & Company, in connection with the distribution of their "Sunniland" brand grapefruit. It is both ingenious and highly practical, and the results to date have been very gratifying to the originators.

Imprinted attractively upon each "Sunniland" grapefruit wrapper is an advertisement which under the heading of "Important Offer to Consumer" issues an invitation to send to Chase & Company at Jacksonville thirty-five cents for a book of proven recipes and the patented Sunniland Orange and Grapefruit Preparer, which easily removes the seeds and properly prepares the fruit for serving. Up to this writing thousands upon thousands of northern housewives have taken advantage of this offer. They have sent the required amount and received the ingen-

the device. At one end is a curved grapefruit knife; at the other is a forked device for the quick and easy removal of seeds without destroying the natural arrangement of the pulp or bruising the rag. A special sheet of instructions accompanies each preparer. This is illustrated with a diagram showing each phase of the operation, and carefully worked out and definite instructions which make it easy thus properly to prepare a grapefruit. Of course, the same operation also will prepare an orange, where it is desired to serve the orange cut in half, a favorite way of serving oranges in the North particularly in hotels and cafes.

The recipe booklet which also is sent has the covers attractively illustrated in natural colors, and contains a number of thoroughly tested recipes for the use of grapefruit and oranges in salads and cookery.

In addition to the very heavy demand for the preparer from thousands of consumers, there likewise has come a large number of orders from many hotels and restaurants. One very large railroad system which carries passengers to and from Florida has placed orders each year for several years for an outfit for each dining car it operates. Nor are northerners the only

society to handle it at this sale.

So important has the advertising and sale of this preparer grown to Chase & Company that there is now a special department in operation in their offices each winter for its distribution. A very compact cardboard container carries the preparer, the direction sheet and the recipe booklet. These are made up in sets, so it is necessary only to address the container, affix the required stamp and the preparer with its literature is ready to travel through the mails to any destination, without danger of loss or breakage.

As might be expected, the introduction of the preparer and the instruction of housewives and others in how properly to prepare grapefruit for serving results in increased grapefruit consumption. In localities where this work has been carried forward aggressively the consequent increase in grapefruit sales is readily traceable.

The sixth annual meeting of the National Milk Producers' Federation will be held in Springfield, Mass., November 9 and 10. This meeting, the first to be held in the East, will consider principally the production, distribution and marketing of milk and its products.

Agricultural Co-Operation and the Consumer

By Asher Hobson, Specialist in Market Research,
Columbia University

The cooperative marketing movement is spreading among farmers. This movement is of interest to consumers. In some respects it is a matter of apprehension. Especially has there been some uneasiness as a result of the recent passage of Federal legislation giving farmers cooperative associations a new and different status under the anti-trust laws. Furthermore, the rapid growth and the gigantic size attained by some of these associations are matters of concern to the final purchasers of the farmers' products—the housewives.

Within the last few years, and more especially within the last five years, farmers' cooperative organizations have developed to a point where it is not unusual for an association to number its members by the thousands, and to measure its yearly volume of business in millions of dollars.

One company has a membership in excess of 65,000 farmers, each bound to the organization by a contract whereby the member agrees to appoint the association as his exclusive marketing agency for a given product over a term of years. It is the universal use of contracts such as these that has gone far in making cooperation among farmers a business reality.

The admitted purpose of these associations is that of obtaining greater returns to the grower for his products. Is such a purpose in harmony with the interests of the consumer? Will a higher price to the grower mean an increased levy upon the final purchaser? Will the grower through his organization exert a monopoly power? These are the questions which form the basis of the consumers' interest in this movement.

It is sometimes held that the interests of growers and the interests of the consumers are akin to the interests of capital as compared to the interests of labor—more points of difference than agreement.

In order to answer the above questions it is proposed to analyze the price policies of a successful farmers' organization of national scope. The American Cranberry Exchange has been chosen for this analysis. There are a number of reasons for making this choice. This organization is one of the most successful in

the country from the growers' standpoint. It has been in operation for fifteen years. The Exchange markets over two-thirds of the entire cranberry crop. Its members are composed of growers in the three principal districts—Massachusetts, New Jersey and Wisconsin. Few organizations have succeeded in uniting growers in so widely separated sections. In addition to the above accomplishments, these growers sell their product in practically every state in the Union, and in Canada as well.

It can readily be seen from the above description that this association is in a strong position in the marketing of its product. Certainly few farmers' organizations can hope to obtain a more favorable position in the control of so large a percentage of the entire production. Hence it would seem as if the cranberry growers through the American Cranberry Exchange were in an excellent position to push their own interests without regard to the interests of those who eat their fruit. What are the facts? How does the cooperative sale of this fruit affect the price to the consumer?

Because of the continued success of this organization and because of its control of the distribution of so large a percentage of the total crop, the writer made an extensive study of its sales methods and price policies, with a view to ascertaining their influence upon retail prices. Below is a discussion of the findings of this study.

Since the organized growers control the marketing of over two-thirds of the total production, it might be concluded upon first thought that they were in a position to control the price of their fruit. A brief analysis, however, shows the near impossibility of price control of this fruit and of agricultural products in general. In order for a commercial agency to fix arbitrarily the price of a commodity, it is necessary that the agency control the amount produced as well as control the marketing of a large quantity of that which is produced. The cranberry growers are in a position to control within limits the marketing of a large portion of the production, but they are not in a position to say how much or how little is to be

produced and offered for sale. It is this factor that makes price fixing of agricultural products through monopoly a mere dream.

The amount produced of an agricultural crop during a given year depends primarily upon two factors: (1) the number of acres in bearing and (2) the yield per acre.

To my knowledge, no cooperative marketing association has made a serious attempt to reduce the number of acres devoted to the culture of its products. There have been general movements to reduce cotton acreage, and the past year has witnessed propaganda designed to discourage the planting of the usual amount of corn. These movements, however, are not connected with specific marketing associations. It is doubtful indeed, if an association could influence to any great extent the acreage devoted to a given product.

If a certain product yields a good return over a period of years, the acreage devoted to this product will increase as a matter of course. If, on the other hand, returns are small, acreage will decrease. Hence it is only by the indirect method of price secured and its relationship to cost of production that an association influences acreage. Certainly the American Cranberry Exchange has no power to say who shall or who shall not grow cranberries. The only way this company could effectually limit acreage under cultivation, and in addition acquire control of all potentially available cranberry land—an impossible feature. Furthermore, the company owns no fields. It is merely an association of growers. It has no influence with its members as to how little or how much of the product each shall grow.

The second factor influencing supply,—yield per acre—better illustrates the futility of control by cooperative associations. Weather conditions, disease and insect pests, beyond the control of the grower, may double, cut in half, or practically wipe out altogether the yield of a given district. In short, the possibility of artificially regulating the amount of an agricultural product which shall be grown during a given season, is beyond considera-

Continued on page 21

Some Varieties of Citrus Fruits for the Philippines

By F. G. Galang, Horticulturist, Bureau of Agriculture—Copied from the Philippine Agricultural Review, Vol. XV No. 1, First Quarter 1922

The conditions for an extensive citrus industry in the Philippines are in most respects very desirable. At present there are only three provinces in the Archipelago that are engaged in a more or less limited way in the cultivation of this important crop. These are the Provinces of Batangas, Ilocos Norte and Nueva Ecija. In Ilocos Norte the Town of Bangui is the one mostly concerned in this industry and Gapan in the Province of Nueva Ecija. In Batangas it is a well-known fact that previous to the eruption of Taal Volcano in 1911 the citrus industry was flourishing, and the native mandarin oranges were shipped by the carload into the Manila markets. Although citrus fruits in the Philippines probably will never become an export crop, still there is a field for a citrus industry producing high grade fruit for home consumption. The custom house statistics showing that the importation of citrus fruits into the islands is increasing every year, and the fact that American, Japanese and Chinese grown fruits are found so commonly in the Manila markets, are evidence that there is a place for choice Philippine citrus fruits. To supplant the use of imported fruits in the Philippine Islands it is first necessary that the proper varieties should be grown. With the determination of this point in view the Bureau of Agriculture has introduced American, Japanese, Chinese, and Australian varieties into the Philippines.

Sweet Orange (*Citrus sinensis*).—Of the sweet orange varieties commonly grown in America which so far have been tried and fruited at Lamo Experiment Station it has been found that they do not give the same quality of fruits here, as is obtained in America, unless possibly they are grown at the higher altitudes. Such varieties are the Washington Navel, Whittaker, Pineapple and Foster. The difficulty is in the coarsening of the fruit and the flesh is fibrous and full of "rag". The taste also, though sweet, is insipid and lacks the flavor of the same fruits grown under temperate climatic conditions. Although these introduced varieties present these characteristics under

Philippine conditions yet they are far superior than the commonly cultivated native sweet oranges. Should the grower desire to grow the introduced sweet oranges the following varieties may be recommended: The Valencia, Jaffa, Ruby, Mediterranean, Larranta, Dugat, Carlton, Durol, Excelsior, Boone, Enterprise and one of the Japanese oranges have shown themselves to produce better fruits under the Philippine conditions and in addition are not as susceptible to the disease called citrus canker as are other orange varieties. Because of its superior quality and flavor the Cuyo orange obtained from Palawan is also worth recommending. This orange was introduced to the Bureau from Cuyo Islands in 1912. It is similar in appearance to other Philippine oranges; 72 mm. long, 76 mm. in diameter, weighing an average of 216 grams; skin green, 5 mm. thick; very sweet, juicy and of excellent quality, and nearly seedless.

Mandarin Orange (*Citrus nobilis* variety *delicosa*). Among the introduced mandarin orange varieties there are several which from experience so far gained, do exceedingly well under Philippine conditions. Prominent among these are the Szinkom and Kishieu, both of which were introduced in September, 1912, from the Department of Agriculture, Saharanpur, India.

The fruits of the Szinkom are numerous, 7 to 8 cm. in diameter, globes, with smooth thin skin, from green to greenish yellow on the tree, separating readily from the flesh; flesh pinkish, good texture, containing very abundant sweet and well flavored juice; seeds present but not numerous. If necessary a perfect orange color of the skin may be obtained by ripening methods after picking. It is very prolific and in addition has the most advantageous feature of being resistant to the disease citrus canker. Of the two crops of fruits observed at Lamo Experiment Station no fruit has ever been observed to be cankered.

The Kishieu has fruited for the first time at Lamo during 1916. The fruits are sweeter than the Szinkom and possess many of the characteristics of the latter except is not being borne as abundantly. It should be mentioned also that there are several other introduced as well as native trees of the mandarin type which bear

very excellent fruits, among these are the Tizon, Oneco, and Dancy. In the experience of the writer, however, the Tizon, although it has yielded very desirable fruits, yet it is rather a shy bearer.

Lemon (*Citrus limonia*).—Of the lemon varieties, there are many grown commercially in America which bear desirable fruits under Philippine conditions; such varieties grown at Lamo are the Clarke, Villafra, Thornless, Valencia, and Messina. All have fruited at the Lamo Experiment Station although not very prolifically and were found to be of very good quality. Since lemon varieties as far as is known are to some extent susceptible to citrus canker a very desirable substitute is found among the lime varieties. The Tahiti lime is found to be resistant to the citrus canker as pointed out by Wester and Lee and substantiated by the writer's observations, and in addition has the most desirable fruits for ades and table use. Although the writer realizes that the Tahiti lime is considered a poor keeper it is believed careful handling as pointed out by Hume would avoid this difficulty.

Another fruit of exceptional merit is the Limon-real (*Citrus excelsa*) described by Wester. The trees of this species are continuous and prolific bearers under Philippine conditions and in addition are to some extent resistant to citrus canker. Although not the ordinary commercial type of lemon it is perhaps a more desirable substitute because of its large size and flavor.

The Alsem (*Citrus webberii*) is found also to make a good substitute for lemons and limes for local consumption. It has been very productive with fruits of good appearance and quite juicy, free from fiber and with a few seeds. The flesh is grayish and aromatic. The juice makes a good ade. One objectionable point is its susceptibility to rindborer, but this can be remedied by the application of an insecticide during the fruiting season.

Pummelo and Grapefruit (*Citrus maxima*).—American grapefruits mature here with a flavor and sweetness, equal to those of American grown fruits of the same varieties; however, they are not desirable for culture because of their extreme susceptibility to citrus canker. Many va-

rieties of pummelos have also been introduced from China and Siam. Among these is a pummelo introduced by the Bureau of Agriculture from Siam, the fruits of which are seedless, the flesh white, and the flavor very desirable. Trees of this variety have been found to canker slightly but never severely; two crops of fruits have been borne and in no case has a fruit shown a single canker. This variety is known as the Siam and of the pummelos it gives most promise of being canker resistant. The fruits are of the pummelo rather than the grapefruit type, that is, somewhat pear-shaped, thicker-skinned and larger than the American grapefruit. It should be noted also that the walls of the sections of these fruits are somewhat thick and coarse and detract from the otherwise great value of the fruit. Another variety of the same introduction that is worth mentioning is the Yugelar. Though it is seeded, the pulp is juicy and very sweet, with excellent quality. To those who desire to try the Grapefruits the Triumph is especially recommended. The fruit averages about 500 grams in weight, about 95 mm. long and 98 mm. across; rind smooth; flesh medium juicy and sweet, quality good and of excellent flavor. Seeds are abundant.

Stock for Commercial Citrus Varieties

It may be well at this time also to consider the experience gained at the Lamao Experiment Station with regard to citrus stocks. In the past, the pummelo has been largely used as a stock, however at Lamao, scions of C. NOBILIS, C. SINENSIS, and C. LIMONIA on pummelo stock, although at first making a good progress, have after the course of a few months become less active. Lee has shown that pumelo as a stock is conducive to severe attacks of mottled leaf, except in the cases of pummelo scions on pummelo stock. The use of pummelo as a stock is therefore now being abandoned at the Lamao Experiment Station.

The lemon and sweet orange have been shown by Fawcett to be more susceptible to gummosis than the sour orange. The sweet orange has proven to be a good stock in all species of citrus, but because of its susceptibility to diseases like the one mentioned above and to that of root-rot and barkrot is not here recommended for stock purpose. The cabuyao (C. HYSTRIX) has also been proven to be a good stock if not for its soft wood characteristics which cause trees to break and fall easily.

Mandarin orange seedlings (CIT-

Fleming Says Citrus Crop Fifteen Million Boxes

Production of citrus fruits in Florida for the season of 1922-23 is estimated at 15,000,000 boxes. Of this total about 8,400,000 boxes will be oranges and tangerines and 6,600,000 boxes grapefruit.

Last season the commercial crop was approximately 13,300,000 boxes, of which 7,300,000 boxes were oranges and 6,000,000 boxes grapefruit. Last season's crop would have been nearer 14,000,000 boxes if the storm of October, 1921 had not destroyed a heavy percentage of the fruit on the West Coast of the state.

Outstanding features of the crop for 1922-23 are: the fine quality and size of fruit from early bloom and the heavy setting of fruit from late bloom.

Bloom last spring was heavy all over the citrus belt, except in the storm-swept territory on the West Coast, and early prospects were splendid. Dry weather followed with considerable shedding of fruit which became serious along the East Coast ridge and in parts of the central highland section.

Beginning in May and extending through June, practically the entire citrus belt put on the heaviest late bloom which the state has ever seen and, with favorable weather conditions, a heavy setting of late fruit followed. The condition in most groves is, therefore, a light (to fairly good) crop of fruit which is showing unus-

ual size and ripening somewhat earlier than usual. On the same trees is a crop from late bloom, filling up the loss from shedding last spring and showing every prospect of swelling the total of shipments next spring and early summer.

By sections, the heaviest increase in production over last year is expected on the central highland ridge, especially through the eastern part of Polk county and the north end of Highlands. South of the ridge, through parts of Hardee and DeSoto counties, production may fall slightly under last year as this section did not develop a good late bloom. The storm territory, of which Pinellas county was the center, will ship about as much fruit as it did last year. Farther up the West Coast an increase of from ten to fifteen percent is in sight. The lower West Coast will run ahead of last season, principally on oranges, most of the fruit being from early bloom. The East Coast shows an average increase of from five to ten percent over last season, with fairly light crops on the ridge and a full crop in the back country.

Production of tangerines is estimated at 125 per cent of last year. Prospects are excellent with trees full of fruit. Production of limes will be slightly heavier than for last year.

SAM T. FLEMING,
Agricultural Statistician.

RUS NOBILIS) have been used rather extensively, although this species as a stock does not give a rapid growth to the tree. The growth is firm and solid, but also has the disadvantage of suckering more freely than the other species.

The calamondin (C. MITIS) has also been used on a large scale, and the trees budded upon this make a very desirable growth and a good bud union especially in the case of sweet orange, mandarin orange and lime. However, a minor trouble has been found on this species, that is, the presence of spines. This can be overcome by trimming the thorns of the stock previous to budding. The sour orange (C. AURANTIUM) according to Fawcett is resistant to gummosis; and it has been used at Lamao as a stock and to the present time is entirely satisfactory.

Wester has published several photographs showing the perfect bud union

of various species on what he has called Kalpi (C. WEBBERII). This stock makes a moderate firm growth and is probably one of the most desirable of the native varieties as a stock for Philippine conditions. A variety of the species was brought to Lamao from the Mountain Province at an elevation of about 4,500 feet. This is perhaps to be preferred to the C. WEBBERII of the lowlands since possibly it is more resistant to cold, and is believed that this particular variety would make an excellent stock for the United States and other citrus growing countries. For one who wishes to grow citrus for citric acid and the rind oils this variety is highly commended.

Acknowledgment is due to Mr. H. Atherton Lee, Mycologist, Bureau of Science, Manila, for his valuable suggestions in the preparation of this article especially in regards to diseases.

The Problem of Distribution

By J. S. Crutchfield, President American Fruit Growers Inc.

Certainly one of the greatest problems of this age, even in this commercial country of ours is how to distribute and market farm products with a view of serving equally well the producer and the consumer. This problem is a big one on staple non-perishable products. How much more so must it be on fresh fruits and vegetables which are both bulky and perishable.

The American Fruit Growers Incorporated, believe the interest of the producer and the consumer is the same, taken as a whole, and that a plan and system broad enough to best meet the situation will prove of maximum benefit to each.

All of the large cooperative associations of this country tackle the problem strictly from the producer's standpoint. The American Fruit Growers Incorporated occupies perhaps a unique position in that it was organized to serve equally well the consumer and producer.

We have been asked the question, "What is the American Fruit Growers Incorporated doing to obtain better results for Florida growers?"

First of all, the American Fruit Growers Incorporated has by example as well as by precept, shown Florida growers the advantage of greater care, speed and efficiency in handling fruit so as to insure its reaching the ultimate consumer with perfect flavor and most attractive appearance.

Unless the grower realizes the necessity of pleasing the ultimate consumer it is impossible to even make a beginning in the matter of successfully marketing his crop. The grower's part generally includes placing the fruit on the cars ready for sale. A full, solid attractive pack presents fruit that has been carefully and speedily harvested to the favorable attention of the retail trade who are the purchasing agents of the consumer.

A well advertised trade mark must be selected under which the product is shipped out in sufficient regularity and quantity to establish it in the confidence and good will of the consumer and the trade, and a most important question is whether the distributing marketing system or agency controlling this trade mark is capable of rendering the necessary service, fairly, efficiently and economically.

The American Fruit Growers Incorporated is a great marketing system or agency which brings together



MR. J. S. CRUTCHFIELD

and facilitates the transaction of business between the producer and consumer with the greatest possible satisfaction to each and at a minimum of expense.

The great demand of the consumer is for a regular dependable supply of first class, wholesome, well flavored fresh fruits and vegetables at a fair market price. Follow the purchasing consumer of the cities of America, large or small, to the market today with her limited understanding of the fine points of the fruit and vegetable business and see how anxiously and quickly she grasps at any dependable sign of quality.

Among those familiar advertised trade marks in the various markets, which most uniformly prove of high quality, flavor and attractive appearance and always available the year around are the familiar trade marks of the American Fruit Growers Incorporated. BLUE GOOSE especially is a household word in the homes of the nation.

It has been possible to accomplish this in the three years since the company was organized particularly be-

cause every orange and grapefruit is identified by a mark on the fruit itself which the consumer and the retailer recognize as a guarantee of quality.

The American Fruit Growers Incorporated not only undertakes to guarantee its trademarked fruit for flavor and general quality but it also undertakes to see that the market is adequately supplied throughout the entire season with the product so that it is possible for the consumer and the retailer to always secure a supply. Efficiency and economy of operation will be steadily increased as its volume increases.

It is therefore not so surprising that in the markets, large and small throughout the country the consumer and the retailer are willing to pay a premium for American Fruit Growers Incorporated trade mark fruits and vegetables even though there may be frequently in the market what appears to be equally good stock at a less price. But the consumer is not sure of the inside quality, she is not sure of her ability to make a selection and, besides, a large quantity of the highest grade fruit and vegetables are ordered on the telephone and the problem of the consumer and the retailer is easily solved where they can specify the particular brand and be sure of getting it.

The advertising done by the American Fruit Growers Inc., makes the product more saleable because of the consumer preference. The consumer buys American Fruit Growers Incorporated products, being assured of freshness and flavor and because the product is known through continuous advertising.

In order to protect both the consumer and the grower, who is willing to use the care and pains necessary to deliver his fruit in perfect condition to the consumer, the American Fruit Growers Incorporated, in connection with the Electric Fruit Marking Company, has developed the electric marking machine whereby each orange and grapefruit has the grower's individual brand and the BLUE GOOSE trade name indelibly marked upon the fruit itself. In this way the identity of the grower's brand is not lost. This constitutes the missing link in the matter of merchandising fresh fruits. This service is available to all growers whose fruit comes up to the required standard.

Every carlot buyer in America and

the principal Canadian markets knows that he can order a dependable supply throughout the entire year from the American Fruit Growers Incorporated offices under the BLUE GOOSE trade mark with absolute assurance of a square deal and satisfaction.

Bear in mind the labor, material, freight and selling costs of fruit handled as above suggested are exactly or substantially the same as where the fruit is handled in a happy-go-lucky style and shipped without system to the markets to be sold for what it will bring.

The grower must be assured the right proportion of what the consumer pays for his fruit. This the merchant Fruit Growers Incorporated undertakes to do.

The consumer is interested in securing at the fair market price daily adequate supplies of fresh, wholesome fruits and vegetables. The producer is concerned about having available a stable and profitable market and such distributing and sales facilities as insure him the full and right proportion of what the consumer pays for the product.

Obviously the solution of this great problem requires the constant application of the best experienced talent in the industry and in addition a permanent program which both producer and consumer and all interested may understand so as to be able to fit in with same. This problem has been studied so constantly from the producer's angle that that phase is pretty well understood.

The American Fruit Growers Incorporated is owned by the public. Many of the representative fruit growers of Florida and practically all of its employees, holding responsible positions, are stockholders. All are interested in working out the great problem of the distribution and marketing of fresh fruits and vegetables, an industry the volume of which aggregates in twelve months approximately one million car loads.

The American Fruit Growers Incorporated are in friendly rivalry with all marketing organizations in the state, working for the betterment of the industry.

Every grower should support some organization working consistently to this end. The problem is too big to be solved by horse-trading, catch-as-catch-can methods.

BIG CITRUS CROP.

It is estimated that the Crescent City section will have fully 400,000 boxes of citrus fruit the coming season and the great packing houses are

being put in shape to handle this immense crop. The local citrus association, affiliated with the Florida Citrus Exchange, has been reorganized with Dr. A. B. Harbison as president and director, associated in the directorate with Messrs. Letts and Darby. They have secured the services of G. H. Duggins as manager, who is making arrangements to handle a much larger share of the fruit this year than ever before. It will be remembered that the Florida Citrus Exchange, earlier in the season purchased the great new packing house of the Standard Growers' Exchange and this will make it possible for the local exchange to expeditiously handle its increased business. R. C. Middleton, who recently purchased the old exchange packing house, has had it remodeled and refitted with modern machinery, and he also will handle a large amount of fruit, as also will John McCormick, Chase & Company, and the American Fruit Growers' all of whom have immense packing plants here. Crescent City has the distinction of being one of the largest shipping points for citrus fruits in Florida.

ATTENTION! FLORIDA CITRUS GROWERS!

It is well known among the Florida Citrus Growers that scale insects become exceedingly injurious following the use of plain Bordeaux for such citrus diseases as Scab and Melanose. Even where Bordeaux oil emulsion combination spray has been used scale insects become more abundant than where no spraying has been done for such diseases. In order to prevent any serious damage from any heavy infestation of scales it is essential to spray with straight oil emulsion all trees that were sprayed during the spring or early summer for the prevention of Scab and Melanose with any of the copper sprays. This spraying should be given about the last week in June or at any rate before July 3rd.

Such a spraying would reach the scales when the greater percentage are in those stages that are most easily killed by the emulsion. The spraying should be most carefully done wetting all branches and leaves on both surfaces.

W. W. YOTHERS,

United States Dept. of Agriculture.

NEW PEST OF CITRUS

THREATENS

Information has just reached the Department of Entomology of the

Florida Experiment Station, Gainesville, that the camphor scale which has been in Louisiana for years has reached Grand Bay, Alabama, where it is proving to be a serious pest to satsuma and other citrus varieties. It is said that a considerable portion of the fruit in the groves where it has appeared has been totally destroyed.

In speaking of this insect, which threatens to become another enemy to the citrus of this state, Professor J. R. Watson, entomologist of the Experiment Station said, "This pest was but recently introduced from Japan. It lives on a large number of plants in addition to camphor and citrus.

"It is evident that we have in this state a serious pest of citrus and all growers should be willing to cooperate to the fullest extent with the State Plant Board of Florida in its efforts to enforce quarantine regulations which prevent the importations of citrus and other host plants into the state. Only by the strictest enforcement of these regulations will the scale be kept out of the state."

\$175.00 IS AMOUNT PAID FOR FIFTY ACRE WINTER HAVEN GROVE

What is probably a new high water mark in real estate circles was reached Monday, when the Ray Snell grove two miles southeast of Winter Haven was sold to Mr. F. H. Callahan of Lakeland for \$175,000.

The Snell grove is one of the best known properties in this section. It consists of fifty acres of grove in the following units: 15 acres in twenty-five years old, twenty-five acres in fifteen years old and 10 acres in two and one half year old trees. The property includes a splendid residence, barns and full equipment. It is estimated conservatively that the present crop will total 25,000 boxes of which a large percentage are late oranges.

Mr. Bentley one of the former owners sold this grove to Mr. D. B. Van Horn of Mahoney City, Penn., in 1914 for \$25,000. Three years later Mr. Van Horn disposed of it to Mr. Ray Snell, son of the president of the local Snell National Bank. After holding it slightly more than five years, Mr. Snell has now disposed of it for the above handsome sum. During these years Mr. Snell's returns from his crops totaled more than his original cost. Mr. Thomas of Auburndale handled the transaction.

STRENGTH



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Tropical Fruits 'Round the World

Australia's effort to replace American and other oranges in the London market with her "kangaroo" brand navels is apparent with a shipment of 6,000 cases the middle of June. This is the first of a series of big consignments, Trade Commissioner Sanger informs the Department of Commerce. Over 40,000 additional cases are to be shipped to London by the beginning of August. This represents the united endeavors of several cooperative citrus associations, the agricultural departments of the various Australian governments, the railroad executives, and the employees. Special overseas shipping facilities have been arranged. The fruit, which comes from New South Wales, Victoria, and South Australia, has been especially selected, and is wrapped in paraffin wax tissues bearing the kangaroo trade mark.

South American fruits, maturing at the time when American and Mediterranean fruits are not available, are now being shipped around the world—over 800,000 boxes having been exported in 1921. Consul Charles J. Pizar states. The fertile velds used by the Boers as grazing lands are now sustaining hundreds of thousands of fruit trees. South Africa's orchards contain 116,320 lemon trees, 1,382,410 orange trees, 323,300 tangerine trees, 1,211,550 apple trees, 907,800 apricot, 105,300 mango, 57,560 nectarine, 2,411,270 peach, 542,420 pear, and 995,570 plum trees according to the government census. Thousands of acres are devoted to grapes and currants, and the South African dried fruit exports, the bulk of which goes to England, are growing larger.

Damaged by a recent hurricane, the banana plantations of Costa Rica are reported by Consul McMillan to have lost over 500,000 bunches, valued at \$250,000. In a statement to the Department of Commerce, the consul describes the furious hurricane as never before having been equalled in violence. Besides the tremendous damage to the plantations, telephone and telegraph systems were completely demolished, houses unroofed, and some harbor shipping partially wrecked.

Both in quantity and quality the Smyrna fig crop for 1922 is expected to exceed by 20 per cent that of 1921. This estimate is based upon rainfall, winds, and other climatic conditions prevailing during the past winter and spring, says J. L. Park of the American Consulate at Smyrna in a report to the Department of Com-

merce. However, it is feared that only the same tonnage as last year (18,000) will be available, due to hazardous transportation from the interior to the coast.

A third of the grape crop of southern Madeira has been destroyed by the "Leste" which broke on July 23. It reached its height, Consul Tells, Funchal, informs the Department of Commerce, on August 2 and 3, the temperature rising to above 100 degrees in the shade. The heat of the wind shriveled the leaves and fruit and the force of it carried the fruit from the vines. Bananas, fruit trees, and other crops have also suffered. The last severe "Leste" visited Madeira in 1919.

The gradual encroachment of sand onto the oases of the Djerid of Tunis is bidding fair to swallow them up, according to a report to the Department of Commerce from the American Consulate at Tunis. The French government, however, has seen the danger and now there is being constructed an earthwork surrounding the oases at about 300 yards from it. This is surmounted by a palisade of palm leaves against which the wind heaps the invading sand, forming a dune. Tropical trees and shrubs are afterwards planted in this dune, making a permanent barrier protecting the oases which produce a food shipped to every corner of the world.

"Feet in water and head in fire," is the Arab description of the date palm upon whose fruit the 22,000 inhabitants of the oases mainly depend for a living, says Mr. T. E. Jeneid, of the American consulate at Tunis, in a report to the Department of Commerce. Although there are over a hundred different varieties of dates, the Arabs simply divide them into three main groups—those that will stand keeping, those eaten before maturity, and those eaten after maturity, and it is the date palm of the Djerid which serves the Arabs in as many different ways as the bamboo serve the inhabitants of the far east. In the first place it is the staple food of the natives, the domestic animals disposing of any waste. The palm leaves are used for the making of hats, baskets, matting, and a host of household articles; the long palm itself is used in construction work. Palm trees, when tapped, yield a certain liquid not unlike coconut milk and about five quarts a day for a month is obtained.

The popular American idea has reached Australia, and soon the people of that country will be celebrating

"Fruit Week", says Trade Commissioner Sanger in a dispatch to the Department of Commerce. A proposal has been made by the commissioner of railways to the various fruit associations for a series of "weeks," so successfully inaugurated in this country, with a view to increasing the demand for soft, citrus, and dried fruits. When a huge surplus of dried fruits in this country was quickly turned into a shortage by popularizing the use of raisin bread during a "Raisin Week" the Australian fruit growers evidently thought it worth while to try the stunt down there.

SPRAYING REDUCES LOSS OF CITRUS FROM ANTHRACNOSE

Very much of the loss of citrus fruit caused by anthracnose could be prevented by promptly and thoroughly spraying the fruit. This disease, being caused by the same fungus which causes withertip, may be expected to appear in groves where withertip is prevalent.

The disease is identified by dark colored sunken patches in the skin of the fruit. The darkened spots may be regular or irregular in outline. The lesions may occur as a number of small spots no larger than a pin head or they may involve a large portion of the fruit. Frequently there are jelly-like exudations around the spots.

According to Dr. O. F. Burger of the Florida Experiment Station the first sign of the disease is dropping fruit. This is particularly true of grapefruit and to lesser degree of tangerines and round oranges. The disease rarely appears on the fruit before it colors except in some cases. It may attack tangerines before the fruit colors. Fruit on weak or poorly nourished trees is especially susceptible.

There is not so much danger of anthracnose, if the dead wood has been pruned to eliminate withertip. If this pruning has been neglected, the fruit should be watched closely. It is suggested that weekly inspections be made in any event to be sure that the disease does not develop.

Ammoniacal solution of copper carbonate is recommended for the control of anthracnose. The spraying must be prompt and thorough if it is to give protection. Every part of the fruit must be moistened, but not drenched. To do other than efficient spraying is useless. Keep the solution from the leaves and branches as much as possible. Repeat in ten days or two weeks later. Results will show in about four weeks.

Protection of Groves Essential to Success

Probably no one feature of citrus production is attracting greater attention or commanding more thoughtful consideration on the part of Florida grove owners at the present time than that of grove protection—the necessity for taking steps to provide adequate “frost protection.”

While it is true that Florida groves are immune from injury from frost by far the greater part of the time, past experience has shown the folly and the futility of the grower assuming that he can rely upon nature and chance for protection against vital injury from frost in the exceptional seasons when frost does come. In this respect, the citrus growers of California are perhaps not wiser, but certainly they are more experienced, than the growers of Florida. Being forced to protect their groves every year, they have come to recognize the futility of rearing groves without adequate protection. For this reason, the introduction of grove heaters in California has been much more rapid and much more general than in Florida.

But because Florida experiences a hard frost only once in six or seven years, is no reason why the Florida grove owner should neglect to provide against financial disaster which always follows such a freeze. That this is coming to be realized more and more by the growers of Florida, is shown by the increasing number of groves which are being provided with “frost insurance” in the form of modern grove heaters. The realization that the labor of years and the expenditure of thousands of dollars may be wiped out in a night by visitation of frost, is leading many enterprising growers to provide their groves with heaters of approved design and proven efficiency.

One such grower is Mr. Ben J. Nordmann of DeLand, who is known as one of the most successful citrus men of the state. In 1917, when many growers of the state suffered great financial loss and many trees were severely frozen, affecting their production for several years, Mr. Nordmann had his grove protected by grove heaters, which not only saved the trees, but also saved much of the fruit still remaining in the grove at the time of the freeze. Mr. Nordmann tells of his

experience in this freeze as follows:

DeLand, Fla., Oct. 10, 1922.

Editor of The Citrus Industry,
Tampa, Fla.

Dear Sir:

Replying to your request for a statement of my experience with grove heaters, would say at the time of the 1917 freeze I had a seven acre grove equipped with oil heaters. Through the use of these heaters I saved all of my trees and also some of the fruit which was still in the grove. Many of my neighbors, whose groves were not protected lost all of their fruit and their trees were badly damaged. Some groves even froze down to the ground.

In the season of 1918 my trees produced a crop which averaged \$10 per tree. In 1919 the yield was at the rate of \$13.00 per tree and in 1920 the yield averaged \$17 per tree. Without the use of the heaters I would have gotten nothing during these three years as groves in the immediate neighborhood which were not protected yielded but very little fruit.

Did it pay me to heat? It did!

(Signed)

B. J. NORDMANN.

Those Florida Growers who made the trip to California last summer returned home with a considerably augmented interest in and respect for the grove heater. They observed that grove heating had been successfully carried on in California for a number of years, and saw with their own eyes the tremendous crops that were saved in the hard freeze of January, 1921.

It has been stated that the Limoneira Citrus Co., now has \$2,000,000 worth of fruit on the trees, which probably would have been a total loss but for the investment which the company has made in heaters for the protection of their groves.

The transcontinental railroads also realize the necessity for grove protection, as is evidenced by the granting of a 50% reduction in the freight rates on grove heaters to the Pacific coast, in order that a full crop of fruit may be assured for the coming season. The 1922 freeze cut into their revenues to such terrific extent that they believed that they could afford to carry grove heaters to the coast at

a loss, and still make money on the increased production which the heaters would assure.

The U. S. Department of Agriculture is so in favor of grove heating that a special booklet has been issued on this subject, “Farmers’ Bulletin No. 1096.” All the fruit growers publications have devoted much space to the subject and the matter has been up for discussion at all meetings of citrus growers and other fruit producers North, South, East and West.

There are many types and varieties of heaters, many of which have been thoroughly tested both in Florida and California, and the efficiency of which has been fully established. Each grove owner must be his own judge as to the type or make of heater which will best and most economically serve his purpose, but for the welfare of himself and the industry in general, The Citrus Industry believes that every grove owner should take steps to provide immediate and adequate “frost insurance” for his grove. The money invested in grove heaters may not return for many days, but when it does return it will be in the ratio of more than “an hundred fold.”

Longwood, Fla., Oct. 9th, 1922

The Citrus Industry,
Tampa, Fla.

Gentlemen:—

A neighbor handed me a copy of your paper a few days ago and, after reading its many interesting and instructive articles, I concluded that, if that copy was a fair sample of what you were giving your patrons, it was worth many times its subscription price to every citrus grower in Florida.

I am enclosing check to cover my subscription for one year.

Very respectfully,

J. E. WALKER.

The Bankers' Interest in Marketing

Bankers have a deep interest in the cooperative marketing associations movement "the success of which will benefit the producer and the consumer, will stabilize crop and land values, and will mean a sounder and steadier financial situation throughout the agricultural sections of the country," it is declared by R. S. Hecht, President of the State Bank Division of the American Bankers Association in the current issue of the Journal of the organization.

"Up to the present time, however, the real support of these cooperative associations has not come as much from the banks as it has come from the War Finance Corporation," says Mr. Hecht, who is President of the Hibernia Bank and Trust Company, New Orleans, La.

"The War Finance Corporation is at best but a temporary agency created to meet an emergency which is rapidly passing, and the permanent solution of the new financial problems which are presented by the co-operative Marketing Associations must ultimately come from the private initiative of bankers and not from Government aid or more legislation.

"My study of the cooperative marketing movement has convinced me that it will spread rapidly and prove to be a practical success. If such proves to be the case, we as bankers must do our share not only in being prepared to make large advances on staple products properly warehoused and liberally margined, but also in helping to adjust our whole agricultural credit system to synchronize with the new economic conditions.

"It will avail the farmer nothing to receive an advance of from 50 to 60 per cent on his product from the Cooperative Marketing Association if the banker or the merchant holds his note for the amount advanced on the crop maturing at the time of harvesting. In other words, we must do something to coordinate the time when the farmer is expected to pay his debts and the time when he gets returns from the sale of his product; otherwise not even the beneficial effects of the Cooperative Marketing Association can save him from disaster.

"But if we no longer expect the grower to pay immediately after the picking season all of his debts incurred for the whole year's producing

operations, we must give him credit for a correspondingly longer period. This does not mean however, that we should necessarily provide new agencies to do what can readily be done by existing machinery, and we should by all means prevent the creation of that purpose, which would only mean duplication and expense.

"While I fully appreciate the necessity for keeping liquid the assets of the Federal Reserve Banks, I do not think any serious harm would result if we permitted such banks to carry a reasonable amount of nine months' agricultural paper, provided it arises out of such a program of orderly marketing. Thus agricultural nine months' paper secured by non-perishable farm products when used to carry such products from one season to the next for speculative purposes might readily be considered "ineligible," whereas the obligations of a farmer or a cooperative association, similarly secured and drawn in the early part of the season, should be considered eligible for the period that is required to market such products in an orderly way.

"I think it very likely that there would be a considerable increase in the membership of the Federal Reserve System if such change were made. It might particularly prove to be an inducement for the smaller banks to join, especially if the law now pending—permitting banks of less than \$25,000 capital to become eligible—should pass. At present less than 1,600 out of the 11,000 state banks which have been eligible all along have actually joined the system; and if the new law passes there will be 4,203 more banks added to the list of state banks which could and might become members if the facilities offered proved sufficiently attractive to them.

"Reports of the War Finance Corporation indicate that during the short period in which it has functioned 4,220 banks availed themselves of its re-discount facilities. I also understand that nearly all the institutions so accommodated were state banks—not members of the Federal Reserve System—and many of them too small to qualify for such membership under the old law.

"This I think is eloquent argument in favor of some adjustment of the rules of eligibility of agricultural pa-

per, and, no doubt, that can be done without seriously effecting the liquidity or jeopardizing the soundness of the system.

"On the other hand, when it comes to the financing of live stock, we are confronted with an entirely different problem because in that case a turnover of from two to three years is required. Paper running for such a period cannot, of course, be handled by the Federal Reserve System, and it may be advisable to provide some other kind of machinery for that purpose.

"The events of the past two years have demonstrated more clearly than ever before to what extent agricultural prosperity lies at the foundation of our natural welfare. Cooperative Marketing Associations have proven successful wherever they were properly managed, and the results they have achieved entitle them to the commendation and the support of the bankers in carrying forward this work.

"Certainly there is no good reason why such associations should not be entitled to borrow money on as favorable terms as any other large business, and while it is well that there should be a continuation of the War Finance Corporation's help during the coming season, there seems to be no good reason why banks should not grant these associations large loans protected by every safeguard sound banking practice requires.

"Some of the ablest farmers and business men are giving their time and thought to this new economic development, which if completely successful will result in a more even distribution of business activity, more stable prices, less speculation and less fluctuations of bank deposits. I can think of no worthier movement to attract the interest of the banker."

Healthy children, rightly fed, don't easily catch colds and contagious diseases.

"The old gray mare ain't what she used be." No, nor is the method of planting corn and other seed what it was when father was a lad.

Remember, seed corn that produced a weak plant is almost as worthless as seed that fails to germinate; neither will produce corn.

AGRICULTURAL CO-OPERATION AND THE CONSUMER

Continued from page 11

tion.

The American Cranberry Exchange is a successful growers' organization, yet it handles a product most difficult to market. The cranberry is perishable and cannot be held for long periods; it must be sold while in prime condition. The consumer need not buy unless he wishes. The ease with which the cranberry may be omitted or substituted in the diet of the average American family makes it impossible to fix arbitrarily the price, even though the association controlled the entire supply.

Since the association cannot regulate the amount produced and since it is not in position to set the price, what then, is the reason for its success? The satisfactory results obtained by the organized growers of this product is due largely to the realization on the part of the management that (1) widespread distribution among people of all economic classes is necessary for the consumption of the normal supply, and (2) if this widespread distribution is to be obtained, the good will of the consumer is essential.

With the increase in acreage and its resulting increase in production, the grower has come to realize that the family of the laboring man must be added to the family of the business man and the professional man as cranberry eaters, if all the normal supply is to be consumed at a satisfactory price. One of the most effective ways of placing this fruit on the laborer's table is to sell it at a price he can afford to pay. Hence one of the definite policies of this organization has been that of attempting to secure for its berries a fair price which will "clean up" the supply during the short selling season of approximately four months, but at the same time, taking care that the price does not go so high as to discourage consumption by the two large classes of our population, laborers and farmers.

Experience has taught the grower that his best interest is closely connected with continuous demand; that is, a demand which does not fluctuate greatly from season to season. He has learned that the cranberry taste, which has gone uncultivated during a season of high prices, is difficult to win again. Hence it is not the desire of the association that berries be sold at prices making them a luxury.

The grower's agency had an unusual experience during the past season in its attempt to keep the price of cranberries within modest limits.

THE CITRUS INDUSTRY

Marketing studies have shown the company that an association price of 15 cents per pound to the wholesaler will permit a retail price of 25 cents per pound. It is the belief of the association that a price higher than 25 cents per pound retail is a detriment to the grower, for the reason that it cuts off the sale of berries to a large class of consumers so necessary for the disposal of a normal crop. Hence it is the desire of the association that the bulk of berries go into consumption at a price not to exceed 25 cents per pound.

Last season the crop about twenty per cent short of normal. The association price started at 10½ cents per pound to wholesalers. It soon advanced to 15 cents. In order to keep it from going above this price, the association kept throwing its berries on the market and increasing the supply. As a result, the berries of the association had been entirely sold by January 1st,—an unusual experience. The average price received by the company was slightly over 13 cents per pound, a price which would admit of a retail price of 25 cents or below. A higher price than this is believed by the organized growers to be a detriment to their industry.

Here was an actual attempt by an organization of growers to keep the price down rather than to raise it, a desire based upon the realization that their well-being depended upon the good will of consumer and his attitude toward their product.

What is true with cranberries is largely true with other agricultural products. Here is a successful farmers' association which controls the marketing of an unusually large proportion of the supply of the product with which it deals. It is an example of strength among organized growers, yet it has risen to its position not through monopoly power, or price control, but largely through catering to the good-will of the consumer,—an example which other associations must follow if they are to occupy similar positions on the pinnacle of cooperative success.

TO CONTROL SCALE ON AVOCADOS

One of the most serious insect enemies of the avocado—pyriform scale—may be controlled by spraying with an oil emulsion, according to Professor J. R. Watson, entomologist of the Florida Experiment Station. This insect, and its control are discussed by Professor Watson as follows:

"What the whitefly is to an orange tree the pyriform scale is to an avo-

cado. It gives off a honeydew in which grows a sooty mold more profusely than on an orange tree following an attack of whiteflies. It is one of the largest of the soft scales, measuring from one-twelfth to one-sixth of an inch in length.

"As its name indicates, the mature female is pear-shaped, tapering to a point in front. The scale itself is brown, is surrounded by a wide fringe of white cottony-looking wax. This cotton serves as a protection to the eggs which are laid in it. The young are oval in shape, greenish-yellow in color and are without cotton. For an illustration of this scale, see Florida Experiment Station Bulletin 148.

"The scale is best killed by one of the oil emulsions, commonly used for scale and whitefly on citrus. In winter the emulsion should be used at the same strength recommended for whiteflies; that is, 1 per cent oil and 99 per cent water. In summer this strength should be reduced somewhat. The trees should not be sprayed in the middle of a clear hot day."

GUMPRECHT WARNS FRUIT GROWERS

Citrus fruit growers and shippers are warned in a statement issued by H. G. Gumprecht, manager of the Manatee County Sub-exchange of the Florida Citrus Exchange, to go slowly and carefully about getting fruit to market.

The first-ripening fruit of the season, unusually early this year, was scattering and of small quantity. Much of the fruit that is ripening now has been held back by the unusually heavy rains, says Mr. Gumprecht. He says "Excessive moisture does not add to the maturity of the fruit, but often has the reverse effect; that is, to increase the acid but not the sugar content.

"Utmost care is now necessary, to carefully pick fruit that will meet the full requirements of state and federal laws, and to this end the exchange is ever ready to co-operate with the proper authorities in the movement of shipping fully matured fruit.

"Therefore, coloring rooms under the supervision of federal inspectors are an additional safeguard against concealing immature fruit; for only fruit matured on the inside may be colored. Their value will be appreciated by every honest shipper and the consuming public."

Shipments of November bloom grapefruit began in the Miami section Aug. 23rd, at which time John F. Fohock began shipping 3,000 boxes from his grove on the Lejunia road near Miami

Twenty-two

GREAT DISPLAY ASSURED FOR STATE FAIR

Continued from page 5.

it for this excellent showing is, undoubtedly, due to the state fair in presenting each year what has been accomplished in the industry, and thus visualizing its possibilities.

In keeping with the educational features, the fair association will offer an attractive program of amusements, which will comprise shows, entertainments, fire works, auto races, horse races, band concerts, and other out door attractions.

All transportation lines will offer low round trip rates to Jacksonville and the city is making preparations to entertain vast crowds during fair week.

FINE PROGRAM OF RACES AND SPORTS

One of the finest amusement programs ever offered at a state fair in the south east will be put on here—November 17 to 25—during the Florida State Fair and Exposition.

The piece de resistance, of course, will be the daily horse races on the half mile track. Some of the best thoroughbreds in the country will be seen in action, five running races each day having been arranged by the Jacksonville Driving Club.

One of the interesting features of the race meet will be the Florida Derby for three year olds and upwards, which will be run on November 23. This race—a mile and seventy yards

THE CITRUS INDUSTRY

—is expected to bring some of the fastest horses participating in the "sports of kings."

Besides the horse races, the amusement features will embrace some of the best out door acts now before the public, together with band concerts, fireworks, the usual midway shows, auto speed contests, and many other attractions peculiar to a state fair.

DAIRY EXHIBITS WILL BE INSTRUCTIVE FEATURE

The Department of Agriculture Exhibit on dairying—covering 2,600 square feet of floor space—will be one of the most interesting displays at the Florida State Fair and Exposition in Jacksonville November 17 to 25.

This exhibit, which was assembled by the department with the view of bringing about a better understanding of the problems of the dairy industry, was shown at the national dairy show in Chicago last year, and attracted so much favorable comment that the fair association made arrangements with the government to send it to the Florida exposition. This action was taken in view of the efforts which have been put forth in Florida during the past several years to build up the dairy industry in this state.

The exhibit is entirely educational and seeks to bring before the dairyman, the dairy manufacturer, and the consumer information and improved practices, which may prove beneficial in these lines of work.

There are eighteen booths in the exhibit, each being devoted to some

phase of the dairy industry, and visualizing the lesson sought to be driven home. The titles of these booths are:

Dairy cattle breeding, cow testing, whey utilization, feeding dairy cows, ways of utilizing milk, diseases of dairy cows, bull association, dairy statistics, cost of milk production, clean milk, milk campaign, live stock improvement, marketing organizations, market news service, foreign markets, butter inspection, cost of marketing, standardization, scenic, better dairy cattle, milk for the children, and milk for the baby.

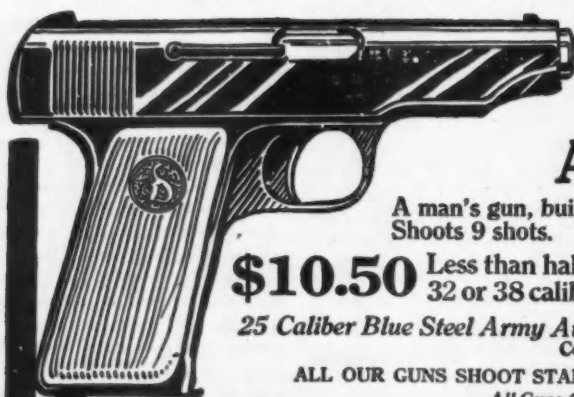
The exhibit alone will be worth a trip to the fair.

LAKE ALFRED HOUSE IS TO COLOR PARSON BROWNS

The Lake Alfred packing house has during the past few days completed coloring rooms to the capacity of three carloads in the interior of the present building, which will enable the growers to ship their early oranges, "Parson Brown," through their own house this coming season.

Tree spraying with bordeaux mixture will control pecan leaf blight. Put the first application on when the young leaves are well opened and follow with the second and third at intervals of two or three weeks. Fallen leaves should be gathered and burned.

The highest possible egg production at the lowest possible cost is a good slogan for poultrymen.



MILITARY AUTOMATICS

A man's gun, built for hard service, 32 or 38 caliber. Shoots 9 shots. Blue steel with safety attachment.

\$10.50 Less than half pre-war prices. **\$10.50**
32 or 38 caliber, was \$25 now

25 Caliber Blue Steel Army Automatic,

Convenient to carry

Price \$7.50

ALL OUR GUNS SHOOT STANDARD AMERICAN AMMUNITION]

All Guns Guaranteed New

SEND NO MONEY

Write your name and address plainly, send it to us and we will forward you one of these Automatics. Pay postman on arrival. Examine Automatic carefully and if not satisfactory just return it and get your MONEY BACK.

F. H. BROOKS, Inc.

330 S. Third St.,

EVANSVILLE, INDIANA

Please mention this paper in replying.

Send for our Catalogue.

THE CITRUS INDUSTRY

GIANT AVOCADOES BEING
PRODUCED IN POLK CO.

Three and three-quarter pound avocados are being raised in Polk county today. L. D. Niles of Lucerne Park, brought four as fine pears to the county agent, as any grower could hope to grow. They were produced by trees planted in 1912, grown to a height of 16 and 18 feet.

Mr. Niles, for about eleven years manager of 1,000 acres of citrus land under the Exchange at Lucerne Park severed his connection with the exchange in that capacity, last winter and began devoting his attention entirely to his private interests in that section.

He now has 700 young avocado trees, covering about 10 acres of land, and including forty varieties of the fruit. Mr. Niles, in cooperation with the Bureau of Plant Industry, at Washington, is experimenting with avocados, with the intention of finding the varieties best suited to propagation in this section under the climatological and soil conditions to be found here. He has discovered that they can be made to bear almost every month in the year.

Two of the pears he had in Bartow recently, were of the Trapp variety, bearing during the winter season, and ready for market in time for New York's Christmas season. Last year he sent a shipment to New York at holiday time and got an average of \$27.17 a box (about 42 pears in the box.)

Two others of the pears he was showing here, were of the Pollock variety, ripening in September, a little later than those with which the public is most familiar.

Mr. Niles is also experimenting with mangoes, and has 150 trees of the new fiberless fruit that bids fair to create a big sensation in the market.

FOREST FIRE PROTECTION

Allotments of \$400,000 of federal funds to states cooperating with the government in protecting forest lands from fire have been made. This sum, with at least an equal amount supplied by the states cooperating, is expended jointly by federal and state agencies in protecting from fire forest lands at the headwaters of navigable streams. The allotment is made on the basis of timbered area and the cost of adequate protection. The federal expenditure in any state is restricted to not over \$24,000. Allotments to the various states are: Maine \$24,000; New Hampshire \$3,425, Vermont \$4,200, Massachusetts \$8,400, Rhode Island

\$625, Connecticut \$3,150, New York \$24,000, New Jersey \$5,050, Pennsylvania \$24,000, Maryland \$3,850, Virginia \$18,200, West Virginia \$10,500, North Carolina \$12,000, Tennessee \$1,700, Louisiana \$21,000, Texas \$14,000, Ohio \$1,050, Michigan \$24,000; Wisconsin \$15,000, Minnesota \$24,000, South Dakota \$100, Montana \$13,725, Idaho South \$2,300, Washington \$24,000, Oregon \$24,000, and California \$22,750.

FRANK KAY ANDERSON JOINS
AMERICAN FRUIT GROWERS INC.

Mr. Frank Kay Anderson, who for a number of years past has been in charge of the Tampa office of the Thomas Advertising Service and who recently resigned his position with that organization, has become associated with the American Fruit Growers Inc., Orlando Division.

While connected with the Thomas Advertising Service Mr. Anderson handled the publicity work of the Florida Citrus Exchange and in this capacity he became widely acquainted with the citrus growers of this state and in citrus circles generally. He was succeeded in the management of the Tampa office of the Thomas Advertising Service by Mr. Wayne Thomas.

While it is not known in just what capacity Mr. Anderson will serve the American Fruit Growers Inc., it is understood that his knowledge of the requirements of the markets in the smaller cities of the North will be utilized in his connection with the American Fruit Growers.

Mr. Anderson and his family moved from Tampa to Winter Park about the middle of the month and Mr. Anderson assumed the duties of his new position on October 16. Mr. Anderson has an acquaintance in Florida which is probably second to that of no other citizen of the state.

CITRUS INDUSTRY COMING.
BACK TO WEST FLORIDA

Old timers often tell about the citrus groves that used to exist in Central, North and West Florida. The famous freezes of the last quarter century brought an end to many groves that really did exist in those parts of the state.

But the citrus industry is swinging back into West Florida. A. P. Spencer, vice-director of the Agricultural Extension Division, Florida College of Agriculture, recently spent several days in the counties west of the Apalachicola river. Upon his return to Gainesville Professor Spencer gave out the following interview:

"There is a decided interest in fruit growing thruout West Florida. During a recent visit with county agents in that part of the state, I looked over some excellent prospects in Jackson, Bay, Washington, Walton, Santa Rosa and Escambia Counties for the development of the satsuma orange.

"It is certain that practically every available satsuma tree that Florida nurseries can supply within the next few months will be set out in this territory.

"An organization meeting is called for Marianna, October 18, for the purpose of discussing ways and means of further promoting the satsuma industry. The program committee has selected a few important subjects to be discussed. Afterward they will make a tour of some plantings and satsuma lands in order to arouse further interest.

"Other fruits are being planted in these counties, principally peaches, plums, persimmons, blueberries and pecans.

"County agents are helping to solve the marketing problems of the farmers. Cooperative sales, particularly of hogs, are being held, and will continue to be held for just about all farm products."

DUNN HEATERS TO BE SOLD
BY THE IMPERIAL OIL CO.

Mr. Chas. Paeschke, jr., who has been in the state for the past two weeks representing Geuder, Paeschke & Frey Co., of Milwaukee, manufacturers of the Dunn Heaters, has contracted with the Imperial Oil Company, 1702-1704 Grand Central Ave., Tampa, Fla., to act as general sales agent for this heater.

Mr. Paeschke who is general sales manager for the Geuder, Paeschke & Frey Company is greatly impressed with the citrus development in Florida and is an enthusiastic booster for the state.

The company which he is representing and of which he is a part is planning an extensive and aggressive campaign for the introduction of Dunn Heaters into the groves of Florida. The Imperial Oil Company, which has secured the state agency for this heater will co-operate with the manufacturers in spreading the gospel of grove heating among the citrus growers of Florida.

A navel grapefruit has been produced in the grove of Milne and O'Berry, fruit packers, near St. Petersburg, Fla. They say it is the result of cross pollinization with a navel orange. The single fruit was perfect in appearance and flavor.

Twenty-four

CLASSIFIED ADVERTISEMENTS

The rate for advertisements of this nature is only three cents per word for each insertion. You may count the number of words you have, multiply it by three, and you will have the cost of the advertisement for one insertion. Multiply this by the total number of insertions desired and you will have the total cost. This rate is so low that we cannot charge classified accounts, and would, therefore, appreciate a remittance with order. No advertisement accepted for less than 50 cents.

THE CITRUS INDUSTRY
411 Curry Bldg., Tampa, Florida

REAL ESTATE

WILL EXCHANGE West Texas cattle ranch for unimproved or improved land in Florida. What have you? Give price and full particulars. T. E. Bartlett, 3410 McKinley Ave., El Paso, Texas.

CALIFORNIA

\$5,000 CASH—\$5,000

Balance 1-2 NET profits from crops. 20 Acres full bearing Navels. \$10,000 eight room house.

Chance to acquire beautiful home and profitable business with small outlay. Buyer must know citrus culture and reside on property.

Other business interests cause this exceptional opportunity.

CLARENCE GELBERT, Owner.
1765-G North Bronson Avenue, Los Angeles, California.

I WANT FARMS for cash buyers. Will deal with owners only. R. A. McNown, 346 Wilkinson Bldg., Omaha, Neb.

FOR SALE—A large, airy nicely furnished cottage at Haven Beach, between Yatch Basin and the Gulf; price \$4000.00, terms, half cash and balance two years. H. W. Hesterly, P. O. Box

MISCELLANEOUS

EXPERIENCED CITRUS MAN wants position as superintendent or manager where good grove work is appreciated and the owner willing to pay for it. Address P. O. Box 1254, Tampa, Fla.

SOUTHDOWN SHEEP, White Rocks, Toulouse Geese, Guineas, Angora and Milk Goats, Circular free. Woodburn, Clifton, Va.

FERRETS for hunting rabbits and rats, save your grain. Conrill Ferret Ranch, Bradford, Ohio, Box P.
Oct.-Nov.-Dec.

EARLY BEARING Papershell Pecan trees, budded or grafted and guaranteed. Great shortage this year. Write for catalog today. Pass Pecan Company, Lumberton, Miss.
No. 54, Tampa, Fla.

COMPETENT CITRUS GROVE manager with years of both technical and practical experience wants position. Excel-

THE CITRUS INDUSTRY

lent references. Address Wm. J. Rank, Route 1, Van Dyke Station, Tampa, Fla.

YOUR FUTURE FORETOLD: — Send dime, birthdate and stamp for truthful, reliable, convincing trial reading. PROF. ERWING, Box 1120, Station C, Los Angeles, California.

WANT to hear from owner having farm for sale; give particulars and lowest price. John J. Black, 180th Street, Chippewa Falls, Wisconsin. Dec. 31

NURSERY STOCK

BROTHER:—Pleasant Florida root easily, inexpensively overcomes any tobacco habit. Fine for stomach. Send address. R. B. Stokes, Mohawk, Florida.

PAPER SHELL PECAN GROVE. Most trees 12 and 13 years old, which is full bearing age. Good condition. Forty acres. Located near Monticello, Fla., Price \$500.00 per acre. Simpson Orchard Co., Vincennes, Ind.

Statement of the Ownership, Management, Circulation, Etc., Required by the Act of Congress of August 24, 1912, of The Citrus Industry, published monthly at Tampa, Florida, for Oct. 1, 1922.

State of Florida,
County of Hillsborough.

Before me, a Notary Public, in and for the state and county aforesaid, personally appeared S. L. Frisbie, who, having been duly sworn according to law, deposes and says that he is the editor of The Citrus Industry, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management, etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 443, Postal Laws and Regulations, printed on the reverse of this form, to-wit:

1—That the names and addresses of the publisher, editor, managing editor and

business manager, are:

Publisher, Associated Publications Corporation, Tampa, Fla.

Editor, S. L. Frisbie, Tampa, Fla.

Managing editor, S. L. Frisbie.

Business manager, S. L. Frisbie, Tampa, Fla.

2—That the owner of said Associated Publications Corporation, Tampa, Fla.

S. L. Frisbie, Tampa, Fla.

S. Lloyd Frisbie, Tampa, Fla.

B. L. Gable, Plant City, Fla.

F. L. Skelly, Orlando, Fla.

L. B. Skinner, Dunedin, Fla.

B. C. Skinner, Dunedin, Fla.

3—That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages or other securities are:

Chas. Scott.

S. L. FRISBIE, Editor.

Sworn to and subscribed before me this

30th day of Sept. 1922.

(Seal)

A. D. WILLIAMS,

Notary Public.

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PECAN LEAF BLIGHT**

Twenty-five

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Leaf blight is a common disease of pecans, injuring both nursery stock and older trees, unless kept in check by spraying with bordeaux mixture.

J. F. Williams, Jr., who has had extensive experience in pecan culture in the Monticello section and who has spent much time studying this disease with specialists of the College of Agriculture, University of Florida, has the following to say about it:

"Pecan leaf blight causes leaves to turn brown, wither up and drop prematurely. It can be detected first by the appearance of small brown spots, which become larger until the whole leaf is destroyed.

"Blight is a fungus disease and is spread by means of spores, small seed-like bodies. These spores are light and are carried by wind to other trees, thus causing the spread of the disease.

"When scab breaks out in a nursery or grove, measures should be taken to destroy it, as a tree makes no progress after being attacked by it.

"The best remedy for this disease is to spray thoroly three times with bordeaux mixture, using a 4-4-50 solution. The first application should be given soon after the young leaves begin to grow. This should be followed by two others at intervals of two or three weeks. The fallen leaves, when practical, should be gathered and burned, if scab is known to have been in the grove the year before.

"In order to control the leaf case-bearer, or other "bud worms" of the pecan, add 1 pound of dry lead arsenate to every 50 gallons of the bordeaux mixture. Thus it is possible to spray for two enemies at once."

COLORING ROOMS ADDED TO FINE WAVERLY HOUSE

R. E. Oren has just completed the brick foundation for the coloring room at the Waverly Exchange packing house. The addition will be 28x46 feet. The Waverly house is equipped with the latest and most approved machinery and Manager Padersen tells it that there will be nothing lacking to keep it from ranking among the best in Florida.

Mr. Farmer, do not make the mistake of planting all of your land to just one or two crops. Take more chances and less risks.

P. N. Cornwell, sales manager of Mammoth Groves, is spending nearly all of his time in St. Petersburg of late, where the company maintains a large office.



Successful Growers Use V-C Fertilizers

For nearly a quarter of a century V-C Fertilizers have been the Standard of the South. They are the reliance of many of the most successful of Florida's citrus growers.

V-C. Service is devoted to studying the needs of citrus men, keeping them abreast of all the latest developments, and contributing much to the advancement of the business of growing oranges and grapefruit. The Florida division of this company is devoted to the welfare and advancement of Florida growers.

There is a V-C formula for every citrus need; and the dependability of V-C mixtures has been no small factor in upbuilding the good will of the growers, which is one of this company's greatest assets.

Factory at Jacksonville together with the V-C. distributing stations at convenient points of access to the growers, give economical and quick deliveries to all points. Write us your requirements.

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E. B. BROWN, Manager
Jacksonville, Fla.



ADDED OUTLET FOR LEMONS

Realizing the possibilities of placing large quantities of oranges and lemons into consumption through the channels of soda fountains and soft drink stands, the California Fruit Growers' Exchange recently took over the manufacturing plant of an electrical juice extractor designed to extract juice from these fruits for rapid service at fountains.

For years the popularity of orangeade and lemonade has been rapidly increasing until today there are thousands of these fresh fruit drink stands in practically all sections of the United States.

Many of these stands, however, in an endeavor to increase their already goodly profits have resorted to adulterating the pure juice of oranges and lemons until some stands have been known to use less than 10 per cent of the pure fruit juice in the concoctions that they were serving the public. And some purveyors of these alleged fruit drinks have been deceiving the public with citric acid combinations, colored artificially, and oftentimes artificially sweetened.

The Sunkist Fruit Juice Extractor which the California Fruit Growers' Exchange is now marketing at cost is

designed to make a pure fruit juice drink before the eyes of the customer as he orders it. What the malted milk mixer has been to the fountain trade in milk drinks, so should be the new juice extractor in the sale of orangeades and lemonades.

This new mechanical device makes the serving of fresh lemonades and orangeades a simple process, so that soda fountain owners and drink stand proprietors are taking to it rapidly.

The entrance of this machine on the market marks the opening of a new outlet for both jobber and retailer handling oranges and lemons.

Fountains using these machines will naturally sell more fresh fruit drinks than in the days when an orangeade or lemonade had to be laboriously made by hand. The increased business of these stands will mean increased business for the jobber or retailer who calls on the fountain owner in his neighborhood using the machine.

Dispensers of beverages often do not know just how to buy oranges and lemons. In the past they have only had to keep a dozen or two on hand. Wherever this machine has been used, so far, fountain owners have had to purchase fruit by the box to keep their supplies well stocked. Here's the

opportunity for the jobber's salesman or the live neighborhood retailer.

There are great possibilities in this new outlet for the jobber and retailer who wants to go after the business.

NOCATEE GROWERS ADD
TO THEIR PACKING HOUSE

News has been received from Nocatee to the effect that the Citrus Growers' association of that place is making another addition to their packing house. This will be the second addition to their building since their organization. Besides some minor equipment, two more sizers and a four room coloring plant will be installed which will make the plant three times its original size.

This organization is said to be one of the best associations in the state. It is an asset to the section and with its continued increase of output is sure to help build up its community.

Messrs. Carl and Claude Simmons report the sale this month of their lime grove located in Eagle Bay, to Cashier W. R. Gary, of the Bank of Okeechobee, and J. F. Jackson. The new owners will enlarge the grove by planting a number of orange trees as soon as possible.

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